

## Product datasheet for **MR208361L4V**

### Mapkap1 (NM\_177345) Mouse Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	Mapkap1 (NM_177345) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Mapkap1
Synonyms:	AI591529; D230039K05Rik; Sin1
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_177345
ORF Size:	1566 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR208361).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_177345.3</a> , <a href="#">NP_796319.1</a>
RefSeq Size:	3044 bp
RefSeq ORF:	1569 bp
Locus ID:	227743
UniProt ID:	<a href="#">Q8BKH7</a>
Cytogenetics:	2 B



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**Gene Summary:**

Subunit of mTORC2, which regulates cell growth and survival in response to hormonal signals. mTORC2 is activated by growth factors, but, in contrast to mTORC1, seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'. Within mTORC2, MAPKAP1 is required for complex formation and mTORC2 kinase activity. MAPKAP1 inhibits MAP3K2 by preventing its dimerization and autophosphorylation. Inhibits HRAS and KRAS signaling. Enhances osmotic stress-induced phosphorylation of ATF2 and ATF2-mediated transcription. Isoform 1 is involved in ciliogenesis, regulates cilia length through its interaction with CCDC28B independently of mTORC2 complex.[UniProtKB/Swiss-Prot Function]